REMARKS

Claims 46-78 were pending and all stand rejected. Claims 46-78 are amended and Claim 79 added. Reconsideration is requested.

Rejections

Claims 46-78 stand rejected under 35 U.S.C. § 102 as unpatentable over Sollish, et al. ("Sollish" hereinafter).

Claim Amendments

Each independent claim has been amended similarly, to simplify them and eliminate terms not necessary for understanding of the claims or patentability thereof. Further, the claims are reformatted in paragraph form to be more readable. None of the amendments are responsive to the rejection, and are not intended to narrow the claims or better distinguish over the reference.

Generally the amendments to the independent claims remove rather than add language. The major change, for instance to Claim 46, is to remove "at the error corrected level without any error correction codes, or from one of the other levels." This "or" clause is deleted as unnecessary since the subject matter of the claim is that the data is provided (read) from the optical disc to be copied at "a level above the encoded data level, but below the user data level as recited n the claim."

Note also substitution in Claim 46 of the word "provided" for "read." This is because here typically the actual physical data is read from the disc as in any other conventional data reading process, in terms of the 1's and 0's (pits and lands) which is the physical sector at 34 in Figure 6. The difference is where the data is provided from in terms of the data processing levels, as also shown in Fig. 6. In a conventional system the user data is provided, which is the highest level data 46 in Figure 6. In accordance with the invention and as explained in the specification at paragraphs 77, 83 and 84, the data is provided for purposes of copying at one of the recording frame level 38, the ECC block level 40, the data frame level 44, or the scrambled frame level 42. In each case these levels are below the user data level.

Defeat Aspect

The invention further is directed to a method of "subverting copy protection techniques," see Abstract. This method enables copying of a copy protected DVD, per the Abstract. This is called in the field a "defeat" technique, that is, it defeats copy protection and allows (e.g., unauthorized) copying of a copy protected disc. See specification paragraph 1 "The present invention relates to a method and apparatus for copying optical discs which, for example, enables copy protected discs to be reliably copied." All claims are directed to this defeat aspect also.

Moreover, as pointed out above this defeat technique is accomplished by providing the data from intermediate levels of the disc read process shown in Fig. 6. Thus, rather than trying to copy the top level user data which is what is protected by the copy protection, instead the present method accesses a lower level of data, such as the recording frame level, ECC block level, scrambled frame level, or data frame level respectively at 38-44 of Fig. 6. Then as shown in Fig. 8 this intermediate level data 44 is written at 12 to the copy disc 52.

This defeat technique defeats a number of known copy protection techniques.

Reference

The Examiner cited only Sollish; the rejection is traversed. First, Sollish does not even mention defeating copy protection. Instead his is a copy protection method. See both his title and his Abstract which says "A copy protected DVD disc and a method for producing and validating the DVD disc is provided. In an embodiment the method for protecting a DVD from being illegally copied includes producing a signature. . ." (Emphases added.) That Sollish only is a copy protection technique is repeated at his paragraph 10 which begins his Summary of the Invention, also his paragraph 2 which is his Field of the Invention, and his paragraph 18 which is similar to the Abstract. See also his paragraph 66 beginning his Detailed Description.

Further, each Sollish claim is directed to <u>copy protecting a DVD disc</u>, see for instance Claims 1, 14, 21, etc. All these are directed to producing a signature where the signature is for copy protection authentication. This is the opposite goal of the present invention.

In no place is it seen where or how Sollish mentions or suggests <u>defeating</u> either his or any other copy protection technique. Moreover, in detail not only is Sollish directed to the opposite technical problem of the present invention, Sollish does not read on the present independent claims. Not only is he directed towards copy protection rather than defeating the copy protection and making a copy, he also accomplishes this differently. He provides a signature, as stated in his Abstract and also in his claims. The signature provides the copy protection since only a genuine disc has a valid signature and an illegal or unauthorized copy generally will not have a valid signature.

The present invention is <u>not</u> directed to providing a signature or anything like a signature, but instead to breaking into the copy protection technique by accessing data at one of the intermediate levels shown in Fig. 6.

In his Action at section 1 the Examiner stated, final paragraph:

> With respect to claims 46 and 64, the Sollish et al. reference teaches reading data from an optical disc at a selected level which differs from the user data level, and writing the data read from said selected level to an optical disc to create a usable copy of a copy protected optical disc. . ..

The Examiner then cited Sollish paragraphs 82, 86 and 117 and 167-169. However, it is not seen where there is any connection between the cited paragraphs of Sollish and the Examiner's above quoted explanation which paraphrases Claim 46 but does not relate to Sollish. In other words, it is respectfully submitted that the rejection is not well grounded in the cited passages of the reference. For instance, Sollish paragraph 82 discloses what happens at the ECC block. However, there is <u>no</u> indication this ECC block is used for copying. Instead, in Sollish paragraph 82 the ECC block is modified to carry the signature. Therefore, at most Sollish recognizes there are the various data levels, but of course this is well known. However he uses these data levels in an entirely

different way than in accordance with the present invention. He introduces his "ambiguous" symbols (which are his signature) into the various data levels. This is not the same, of course, as using various data levels for <u>copying</u> (reading and then writing) purposes. It is not seen where the other passages in Sollish cited by the Examiner are any more pertinent than paragraph 82. For instance, paragraph 117 does not appear pertinent at all and neither do paragraphs 167-169. Instead these describe the nature of the signature using the ambiguous symbols which Sollish writes to his disc to provide copy protection thereto. Of course, there is no attempt to provide copy protection in accordance with the present invention. Instead the goal is to <u>defeat</u> copy protection.

Claims Distinguish Over the Reference

Therefore it is respectfully submitted that Claim 46 distinguishes over the reference. As pointed out above, the rejection of Claim 46 is traversed and the amendments thereto are to simplify the claim and eliminate terminology, rather than to better distinguish over the reference. Claim 46 distinguishes over the reference at least two reasons. First, the Claim 46 preamble recites "A method of copying a copy protected optical disc." To the contrary, Sollish is only concerned with copy protection, <u>not</u> with defeating same (copying). It is understood the claim preamble may be ignored for purposes of anticipation. However, the body of Claim 46 is also explicitly directed to copying because it calls for "<u>reading data from an optical disc at a selected level</u> which differs from the user data level <u>and writing the data read from said selected level to an optical disc</u> to create a usable copy. . ." (Emphasis added) Of course, neither of these steps is undertaken by Sollish or even suggested by him.

Second, Claim 46 recites "wherein the data is provided from the optical disc at a level above the encoded data level but below the user data level, and writing the provided data to an optical disc commencing at a data level which corresponds to the data level from which the data has been provided." Note the substitution of "provided" for "read" is to improve clarity. Obviously, the data is always read from the disc at the physical level. The question is at what level is that data accessed for purposes of copying, and that is the intermediate data level recited in Claim 46.

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While of course Sollish acknowledges the existence of the intermediate data levels and he, in fact, manipulates data at that level, he is _not_ reading intermediate level data from a disc at all. Instead he receives his original data from some other source (such as the "DLT tape" in his Fig. 8) and writes that data to a disc. Note that his original data source is _not_ a copy protected disc. He instead is creating a copy protected disc from original user data provided on the DLT tape.

So Claim 46 distinguishes over Sollish for at least these two reasons.

<u>Dependent Claims</u>

The claims dependent on Claim 46 all similarly distinguish over Sollish for at least the same reasons as the base claim.

Dependent Claim 47 is additionally specific about the data level which is "the error corrected level" and recites "providing the data from the error corrected level without any error correction codes." While the Examiner cited Sollish paragraph 82 against Claim 47, it is not seen where paragraph 82 meets Claim 47. For instance, it is not seen where in paragraph 82 there is any omission of the error correction codes, contrary to what is recited in Claim 47 "without any error correction codes." So Claim 47 further distinguishes over Sollish.

Similarly, dependent Claim 49 is directed to accessing the data at the intermediate "data frame level." The Examiner again cited Sollish paragraph 82 against Claim 49, but it is not seen where this paragraph discloses accessing or providing data at the data frame level. The mere _existence_ of the data frame level is not enough to meet Claim 49 and hence this rejection is also traversed.

Dependent Claim 54 ("the interleaved level") similarly additionally distinguishes over Sollish.

Independent Claim 61 is an apparatus claim and has been amended to remove the "means for" and "means to" terminology. Claim 61 reads on , e.g., Fig. 9 and now recites specific

structures. Claim 61 also reads on paragraph 76 (for the reading portion) and paragraph 77 (for the writing portion). Otherwise, Claim 61 is amended similarly to Claim 1 and similarly distinguishes over the reference. Note that the amendments to Claim 61 to eliminate "means to" and "means for" are not intended to overcome any rejection but to improve form and scope of the claim. The claims dependent on Claim 61 are similarly amended to conform to the base claim.

The preamble of Claim 64, which is the third independent claim, has been amended to be in so-called Beauregard form. It now recites "A computer readable medium storing software or firmware." Note that earlier pending Claim 64 merely said "Software or firmware for use with an optical disc drive." The Claim 64 preamble is amended only to ensure that it falls within a statutory category since "software or firmware" by itself may not be considered patentable.

It is recognized that the term "A computer readable medium" does not appear *in haec verbis* in the specification. However, the specification does show and describe in several places the computer program upon which Claim 64 reads, see for instance, the disc copying program 54 in Figs. 8 and 9 which is part of the DVD drive of Fig. 9. It is respectfully submitted that it is inherent that a computer program must be stored in a "computer readable medium" to be accessed or used. In fact, that is the only real method of expressing a computer program. (A text or printed version being only for human understanding.) So Claim 64 is supported inherently by the specification.

Further, Claim 64 is amended similarly in its body as method Claim 46 and distinguishes over the reference for at least the same reasons as pertain to Claim 46.

Claim 65-78 depend upon Claim 64 and are allowable for at least the same reasons as the base claim. Further, some of these dependent claims are similar to those claims dependent upon Claim 46 and similarly allowable. For instance, dependent Claim 65 corresponds to Claim 47, Claim 67 corresponds to Claim 49, and Claim 72 corresponds to Claim 54 and are each similarly additionally allowable.

New Claim 79 (dependent upon Claim 46) is directed to the copy optical disc (an article of manufacture) which is the necessary product of the Claim 46 method and is allowable for at least for the same reasons as base Claim 46.

CONCLUSION

In view of the above, all pending Claims 46-79 in this application are believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing <u>Attorney Docket No. 136922005600</u>.

RULE 34

This paper is submitted under Rule 34; the correspondence address remains that of Patent Department, Macrovision Corporation.

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Respectfully submitted,

By_____

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